

## ME08 Activity 2 - Changing Images

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File Edit Selection View Go Run Terminal Help README.md - Visual Studio Code
> Documents > UP > 2021-2 > CoE 197 > ME8_Containerization_and_Docker > 2-changing_images > README.md > ## Exercise 2: Changing images > ## Modifying an image

121 Preparing to unpack .../libidn11_1.32-3ubuntu1.1_amd64.deb ...
122 Unpacking libidn11:amd64 (1.32-3ubuntu1.1) ...
123 Selecting previously unselected package libffi6:amd64.
124 Preparing to unpack .../libffi6_3.2.1-4_amd64.deb ...
125 Unpacking libffi6:amd64 (3.2.1-4) ...
126 Selecting previously unselected package libp11-kit0:amd64.
127 Preparing to unpack .../libp11-kit0_0.23.2-5-ubuntu16.04.1_amd64.deb ...
128 Unpacking libp11-kit0:amd64 (0.23.2-5-ubuntu16.04.1) ...
129 Selecting previously unselected package libtasn1-6:amd64.
130 Preparing to unpack .../libtasn1-6_4.7-3ubuntu0.16.04.1_amd64.deb ...
131 Unpacking libtasn1-6:amd64 (4.7-3ubuntu0.16.04.1) ...
132 Selecting previously unselected package libgnutls30:amd64.
133 Preparing to unpack .../libgnutls30_3.4.10-4ubuntu1.2_amd64.deb ...
134 Unpacking libgnutls30:amd64 (3.4.10-4ubuntu1.2) ...
135 Selecting previously unselected package libgnutls-openssl127:amd64.
136 Preparing to unpack .../libgnutls-openssl127_3.4.10-4ubuntu1.2_amd64.deb ...
137 Unpacking libgnutls-openssl127:amd64 (3.4.10-4ubuntu1.2) ...
138 Selecting previously unselected package iputils-ping.
139 Preparing to unpack .../iputils-ping_3:20121221-5ubuntu2_amd64.deb ...
140 Unpacking iputils-ping (3:20121221-5ubuntu2) ...
141 Processing triggers for libc-bin (2.23-0ubuntu7) ...
142 Setting up libgmp10:amd64 (2:6.1.0+dfsg-2) ...
143 Setting up libnettle6:amd64 (3.2-1ubuntu0.16.04.1) ...
144 Setting up libhogweed4:amd64 (3.2-1ubuntu0.16.04.1) ...
145 Setting up libidn11:amd64 (1.32-3ubuntu1.1) ...
146 Setting up libffi6:amd64 (3.2.1-4) ...
147 Setting up libp11-kit0:amd64 (0.23.2-5-ubuntu16.04.1) ...
148 Setting up libtasn1-6:amd64 (4.7-3ubuntu0.16.04.1) ...
149 Setting up libgnutls30:amd64 (3.4.10-4ubuntu1.2) ...
150 Setting up libgnutls-openssl127:amd64 (3.4.10-4ubuntu1.2) ...
151 Setting up iputils-ping (3:20121221-5ubuntu2) ...
152 Setcap is not installed, falling back to setuid
153 Processing triggers for libc-bin (2.23-0ubuntu7) ...
154 root@786b94c53c6d:/#
155 ***
156
157 4. Finally, we should be able to use `ping`.
158
159 Ping your favorite website. When you've seen enough, `Ctrl+C` to interrupt, then `exit` the container.
160
161 ***
162 root@786b94c53c6d:/# ping google.com
163 PING google.com (172.217.4.206) 56(84) bytes of data.
164 64 bytes from 1ga15s48-in-f14.1e100.net (172.217.4.206): icmp_seq=1 ttl=37 time=0.936 ms
165 64 bytes from 1ga15s48-in-f14.1e100.net (172.217.4.206): icmp_seq=2 ttl=37 time=0.367 ms
166 64 bytes from 1ga15s48-in-f14.1e100.net (172.217.4.206): icmp_seq=3 ttl=37 time=0.258 ms
167 ^C
168 --- google.com ping statistics ---
169 3 packets transmitted, 3 received, 0% packet loss, time 2033ms

Ln 97, Col 37 Spaces: 4 UTF-8 CRLF Markdown RP Q
root@9141572adba8:/
.04.2 [93.7 kB]
Get:3 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libhogweed4 amd64 3.2-1ubuntu0.1
6.04.2 [136 kB]
Get:4 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libidn11 amd64 1.32-3ubuntu1.2 [
46.5 kB]
Get:5 http://archive.ubuntu.com/ubuntu xenial/main amd64 libffi6 amd64 3.2.1-4 [17.8 kB]
Get:6 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libp11-kit0 amd64 0.23.2-5-ubunt
u16.04.2 [107 kB]
Get:7 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libtasn1-6 amd64 4.7-3ubuntu0.16
.04.3 [43.5 kB]
Get:8 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnutls30 amd64 3.4.10-4ubuntu
1.8 [548 kB]
Get:9 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnutls-openssl127 amd64 3.4.10
-4ubuntu1.8 [21.9 kB]
Get:10 http://archive.ubuntu.com/ubuntu xenial/main amd64 iputils-ping amd64 3:20121221-5ubuntu2
[52.7 kB]
Fetched 1307 kB in 32s (39.8 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package libgmp10:amd64.
(Reading database ... 4785 files and directories currently installed.)
Preparing to unpack .../libgmp10_2:6.1.0+dfsg-2_amd64.deb ...
Unpacking libgmp10:amd64 (2:6.1.0+dfsg-2) ...
Selecting previously unselected package libnettle6:amd64.
Preparing to unpack .../libnettle6_3.2-1ubuntu0.16.04.2_amd64.deb ...
Unpacking libnettle6:amd64 (3.2-1ubuntu0.16.04.2) ...
Selecting previously unselected package libhogweed4:amd64.
Preparing to unpack .../libhogweed4_3.2-1ubuntu0.16.04.2_amd64.deb ...
Unpacking libhogweed4:amd64 (3.2-1ubuntu0.16.04.2) ...
Selecting previously unselected package libidn11:amd64.
Preparing to unpack .../libidn11_1.32-3ubuntu1.2_amd64.deb ...
Unpacking libidn11:amd64 (1.32-3ubuntu1.2) ...
Selecting previously unselected package libffi6:amd64.
Preparing to unpack .../libffi6_3.2.1-4_amd64.deb ...
Unpacking libffi6:amd64 (3.2.1-4) ...
Selecting previously unselected package libp11-kit0:amd64.
Preparing to unpack .../libp11-kit0_0.23.2-5-ubuntu16.04.2_amd64.deb ...
Unpacking libp11-kit0:amd64 (0.23.2-5-ubuntu16.04.2) ...
Selecting previously unselected package libtasn1-6:amd64.
Preparing to unpack .../libtasn1-6_4.7-3ubuntu0.16.04.3_amd64.deb ...
Unpacking libtasn1-6:amd64 (4.7-3ubuntu0.16.04.3) ...
Selecting previously unselected package libgnutls30:amd64.
Preparing to unpack .../libgnutls30_3.4.10-4ubuntu1.8_amd64.deb ...
Unpacking libgnutls30:amd64 (3.4.10-4ubuntu1.8) ...
Selecting previously unselected package libgnutls-openssl127:amd64.
Preparing to unpack .../libgnutls-openssl127_3.4.10-4ubuntu1.8_amd64.deb ...
Unpacking libgnutls-openssl127:amd64 (3.4.10-4ubuntu1.8) ...
Selecting previously unselected package iputils-ping.
Preparing to unpack .../iputils-ping_3:20121221-5ubuntu2_amd64.deb ...
Unpacking iputils-ping (3:20121221-5ubuntu2) ...
Processing triggers for libc-bin (2.23-0ubuntu11.2) ...
Setting up libgmp10:amd64 (2:6.1.0+dfsg-2) ...
Setting up libnettle6:amd64 (3.2-1ubuntu0.16.04.2) ...
Setting up libhogweed4:amd64 (3.2-1ubuntu0.16.04.2) ...
Setting up libidn11:amd64 (1.32-3ubuntu1.2) ...
Setting up libffi6:amd64 (3.2.1-4) ...
Setting up libp11-kit0:amd64 (0.23.2-5-ubuntu16.04.2) ...
Setting up libtasn1-6:amd64 (4.7-3ubuntu0.16.04.3) ...
Setting up libgnutls30:amd64 (3.4.10-4ubuntu1.8) ...
Setting up libgnutls-openssl127:amd64 (3.4.10-4ubuntu1.8) ...
Setting up iputils-ping (3:20121221-5ubuntu2) ...
Setcap is not installed, falling back to setuid
Processing triggers for libc-bin (2.23-0ubuntu11.2) ...
root@9141572adba8:/#
```

# Ping installed :O

```
root@9141572adba8:/# ping google.com
PING google.com (142.250.66.110) 56(84) bytes of data.
64 bytes from 142.250.66.110: icmp_seq=1 ttl=37 time=22.7 ms
64 bytes from 142.250.66.110: icmp_seq=2 ttl=37 time=21.7 ms
64 bytes from 142.250.66.110: icmp_seq=3 ttl=37 time=22.2 ms
64 bytes from 142.250.66.110: icmp_seq=4 ttl=37 time=27.0 ms
64 bytes from 142.250.66.110: icmp_seq=5 ttl=37 time=21.9 ms
^C
--- google.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4005ms
rtt min/avg/max/mdev = 21.714/23.151/27.068/1.993 ms
root@9141572adba8:/#
```

## Pinging google.com

```
PS C:\Users\jcms1> docker commit --help

Usage:  docker commit [OPTIONS] CONTAINER [REPOSITORY[:TAG]]

Create a new image from a container's changes

Options:
  -a, --author string      Author (e.g., "John Hannibal Smith
                           <hannibal@a-team.com>")
  -c, --change list        Apply Dockerfile instruction to the created image
  -m, --message string     Commit message
  -p, --pause              Pause container during commit (default true)
PS C:\Users\jcms1>
PS C:\Users\jcms1> docker commit -a 'David Elner' -m 'Added ping utility.' 786 delner/
ping
Error response from daemon: No such container: 786
PS C:\Users\jcms1> docker commit -a 'David Elner' -m 'Added ping utility.' 914 delner/
ping
sha256:1c4aabf8a47936222198c69a91e2d23c404e6963d3da65bd0848616c5b903f8a
PS C:\Users\jcms1> docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
delner/ping   latest    1c4aabf8a479   30 seconds ago 170MB
ubuntu        16.04     9ff95a467e45   3 weeks ago   135MB
PS C:\Users\jcms1>
```

**Container state committed as a new image :O**

```

error response from daemon: no such container: 786
PS C:\Users\jcms1> docker commit -a 'David Elner' -m 'Added ping utility.' 914 delner/
ping
sha256:1c4aabf8a47936222198c69a91e2d23c404e6963d3da65bd0848616c5b903f8a
PS C:\Users\jcms1> docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
delner/ping    latest    1c4aabf8a479    30 seconds ago 170MB
ubuntu        16.04     9ff95a467e45    3 weeks ago    135MB
PS C:\Users\jcms1> docker run -it --rm delner/ping /bin/bash
root@e61a4c2cb17b:/# ping google.com
PING google.com (142.250.66.110) 56(84) bytes of data.
64 bytes from 142.250.66.110: icmp_seq=1 ttl=37 time=25.5 ms
64 bytes from 142.250.66.110: icmp_seq=2 ttl=37 time=27.8 ms
64 bytes from 142.250.66.110: icmp_seq=3 ttl=37 time=22.8 ms
64 bytes from 142.250.66.110: icmp_seq=4 ttl=37 time=22.6 ms
^C
--- google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 22.613/24.725/27.856/2.155 ms
root@e61a4c2cb17b:/# ping youtube.com
PING youtube.com (142.250.66.46) 56(84) bytes of data.
64 bytes from 142.250.66.46: icmp_seq=1 ttl=37 time=26.0 ms
64 bytes from 142.250.66.46: icmp_seq=2 ttl=37 time=25.0 ms
64 bytes from 142.250.66.46: icmp_seq=3 ttl=37 time=24.8 ms
^C
--- youtube.com ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2003ms
rtt min/avg/max/mdev = 24.821/25.287/26.011/0.550 ms
root@e61a4c2cb17b:/# ping facebook.com
PING facebook.com (31.13.77.35) 56(84) bytes of data.
64 bytes from 31.13.77.35: icmp_seq=1 ttl=37 time=21.5 ms
64 bytes from 31.13.77.35: icmp_seq=2 ttl=37 time=20.3 ms
64 bytes from 31.13.77.35: icmp_seq=3 ttl=37 time=22.8 ms
64 bytes from 31.13.77.35: icmp_seq=4 ttl=37 time=21.7 ms
^C
--- facebook.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 20.338/21.631/22.830/0.902 ms
root@e61a4c2cb17b:/#

```

**Using ping on a different container :O**